Suggested prompts and questions to be used in the mathematics classroom

Questions and prompts to help students make sense of mathematics.

- Did anyone get a different answer? How did you get your answer?
- Did anyone get the same answer in a different way?
- What do you think helped you decide how to get your answer?
- Tell me /the group/class what you were thinking.

Questions and prompts which foster predicting, inventing and problem solving.

- What would happen if?
- Is there a pattern? What is it? Why not?
- What decisions can you make form this pattern?
- What is the same or different about your two ways of doing this? This question could refer to two Ways by the same students or by two different students.
- Can you change something to make it come out differently? What? Why do you think that works?
- Will it be the same if we use different numbers?

Questions and prompts that encourage children to rely more on themselves.

- Does it make sense to you? Why or why not?
- What would seem more reasonable to you? Why?
- How can you check to see for yourself?
- What do you think you should do next?
- How do you think that I should find out?
- What do you want me to do next?
- Please explain your way to the class/group.
- Make a model or a drawing to show what it means.
- Find a classmate and see if you can work it out together.

Questions and prompts to promote reasoning.

- Will what you did always work that way? How do you know?
- How could it be done in a shorter way?
- What other numbers will work?
- Are there some numbers for which that way will not work? How do you know?
- Write a new problem that is different in some ways but the same in others.
- What is the largest number you can think of that will work? The smallest?
- Why do you want to change your answer?

Questions and prompts to help children connect and apply mathematics.

- How does this relate?
- Have you ever solved a problem like this before?
- Tell, draw or write a story problem that uses this kind of mathematics.
- How does this relate to what we did in science or the other day?
- What would you measure it with? Why?
- How do you think a carpenter (builder, dentist, mother, farmer) would use these mathematics?
- Which things in your house have these shapes?
- Can you write or draw a picture of how you figured that out?
- Use these materials to show me how you solved the problem. Do you think that other materials would work better?

Prepared by Susan Methis. Adapted from ideas in Fountas, I.C., & Pinnell, G.S. *Guiding readers and writers, grades 3-6* Portsmouth, NH: Heinemann (2001)